

REMARKS

This is in response to the Office Action mailed 2 July 2003.

Claims 19 and 20 have been cancelled and new claims 21 and 22 have been added.

Claims 1-18, 21 and 22 are currently pending.

The Examiner has expressed the view that claims 1-3, 5, 7-9, 11, 13-15, 17 and 19-20 were anticipated by Hines, and rejected those claims under 35 U.S.C. 102(b). The Examiner has also expressed the view that claims 4, 6, 10, 12, 16 and 18 were obvious in light of Hines in view of Elder, and rejected those claims under 35 U.S.C. 103(a).

Hines, as understood, discloses an integrated turbine generator with an inner rotor (42) and an outer rotor (38) (see Figure 1). The outer rotor has blades (36) which extend inwardly and are interdigitated with blades (40) extending outwardly from inner rotor (42) (see column 3 lines 19-22). One of a first field core (46) and first armature (48) is attached to the outer rotor (38), and the other is "fixedly joined to the stationary front and rear frames 32 and 34" (see column 3, lines 44-51). Hines does not disclose one set of blades positioned radially outwardly from the other set of blades and also does not disclose a base for rotatably supporting the two sets of blades.

Elder, as understood, discloses a power generation system comprising a vertical axis turbine (8) having curved rotor blades (2) an open stator cage cover (10). Elder does not appear to disclose any counter-rotating elements.

Claim 1 has been amended to recite that "the second fluid outlets are positioned radially outwardly from the first fluid outlets", and that the turbine system includes "a base comprising a first set of bearings for supporting said first rotating portion and a second set of bearings for supporting said second rotating portion, such that said first rotating portion and said second rotating portion rotate freely with respect to said base". As stated, neither Hines nor Elder disclose these features. The two sets of blades (36, 40) of Hines are interdigitated with each other, rather than being positioned so that one set of blades is positioned radially outwardly from the other set of blades.

Furthermore, with respect to claims 7-18, all of these claims include an armature and a field which rotate in opposite senses. The field (46) and armature (48) of Hines do not both

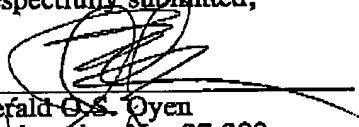
rotate: one rotates with outer rotor (38) while the other remains stationary, as discussed above.

Neither Hines, Elder, nor any of the other prior art of record disclose all of the features of amended claim 1. Accordingly, it is submitted that amended claim 1, and claims 2-18 which depend therefrom, are patentable over Hines and Elder.

New claims 21 and 22, which recite further aspects of the invention, are also submitted to be patentable over Hines and Elder.

Respectfully submitted,

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